

**Notice of Allowability**

Application No.

10/029,526

Applicant(s)

TURNER ET AL.

Examiner

Blessing M. Fubara

Art Unit

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/03/05.
2. ☒ The allowed claim(s) is/are 1, 3, 4, 6-9 and 11-25 (claims are renumbered).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 09/08/05.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
THURMAN R. PAGE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

### DETAILED ACTION

Examiner acknowledges receipt of Notice of Appeal filed 02/03/05 and Appeal Brief filed 06/03/05. Claims 1-25 are appealed.

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

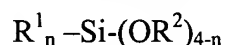
Authorization for this examiner's amendment was given in a telephone interview with Karen A. Harding on 09/08/05.

The application has been amended as follows:

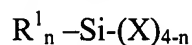
In the claims, replace claims 1-25 with the amended claims 1-25 listed below. By the amendment, claims 2, 5 and 10 are canceled. Cancel claims 26-52.

1. (Amended) An antimicrobial lens comprising a zeolite coated with a composition comprising at least one silane of Formula I or II

Formula I.



Formula II



wherein

$R^1$  is  $C_{1-20}$ alkyl,  $C_{1-8}$ alkenyl, phenyl, phenyl $C_{1-8}$ alkyl, halo $C_{1-8}$ alkyl, fluoro $C_{1-8}$ alkyl,  $C_{1-8}$ alkoxycarbonyl $C_{1-8}$ alkyl, or  $C_{1-8}$ alkylsiloxy;

Art Unit: 1618

$R^2$  is  $C_{1-6}$ alkyl,  $C_{1-8}$ alkenyl phenyl, phenyl $C_{1-8}$ alkyl, halo $C_{1-8}$ alkyl, or  $C_{1-8}$ alkoxycarbonyl $C_{1-8}$ alkyl;

X is any group that can be displaced with a nucleophile and n is 1-3.

2. (Canceled).
3. (amended). The lens of claim 1 wherein the coated zeolite comprises silver.
4. (amended). The lens of claim 1 wherein the lens is a contact lens.
5. (Canceled).
6. (Currently Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula I and  $R^1$  is  $C_{10}$ alkyl.
7. (Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula I and  $R^1$  is  $C_{18}$ alkyl.
8. (Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula I and  $R^1$  is  $C_8$ alkyl.
9. (Currently Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula I and  $R^2$  is  $C_{1-3}$ alkyl.
10. (Canceled).
11. (Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula II and X is selected from the group consisting of is chloro, bromo, iodo, acyloxy, hydroxyl, and  $NH-Si(CH_3)_3$ .

Art Unit: 1618

12. (Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula II and  $R^1$  is  $C_{10}$ alkyl.

13. (Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula II and X is acyloxy or chloro.

14. (Amended). The lens of claim 1 wherein the composition comprises at least one silane of Formula II and  $R^1$  is  $C_{18}$ alkyl.

15. (Currently Amended). The lens of claim 1 wherein the silane is selected from the group consisting of phenyltrimethoxysilane, phenyltriethoxysilane, diphenyldimethoxysilane, diphenyldiethoxysilane, methyltrimethoxysilane, methyltriethoxysilane, methyltripropoxysilane, ethyltrimethoxysilane, ethyltriethoxysilane, ethyltripropoxysilane, propyltrimethoxysilane, propyltriethoxysilane, propyltripropoxysilane, butyltrimethoxysilane, butyltriethoxysilane, hexyltrimethoxysilane, hexyltriethoxysilane, benzyltrimethoxysilane, octyltrimethoxysilane, octyltriethoxysilane, octyltripropoxysilane, decyltrimethoxysilane, dodecyltrimethoxysilane, octadecyltrimethoxysilane, tetradecyltrimethoxysilane, tetradecyltriethoxysilane, hexadecyltrimethoxysilane, hexadecyltriethoxysilane, dimethyldimethoxysilane, dimethyldiethoxysilane, dibutyldimethoxysilane, octadecylmethyldimethoxysilane, octadecyldimethylmethoxysilane, acetoxypropyltrimethoxysilane, octadecyltrichlorosilane, trifluoropropyltrimethoxysilane, perfluorodecyl- 1H,1H,2H,2H-dimethylchlorosilane, N-(2-aminoethyl)-3-aminopropyltrimethoxysilane, and 3-aminopropyltrimethoxysilane.

16. (Amended). The lens of claim 1 wherein the silane is selected from the group consisting of octadecyltrimethoxy silane, octyltrimethoxysilane, butyltrimethoxysilane, octadecyltrichlorosilane, and acetoxypropyltrimethoxysilane.

17. (Amended). The lens of claim 1 wherein the silane is octyldecyltrimethoxysilane.

Art Unit: 1618

18. (Amended). The lens of claim 1 having more than about 0.02 weight percent coated zeolite, and less than about 1.0 weight percent coated zeolite.

19. (Amended). The lens of claim 1 having more than about 0.025 weight percent coated zeolite, and less than about 0.1 weight percent coated zeolite.

20. (Amended). The lens of claim 1 having more than about zero weight percent coated zeolite, and less than about 0.1 weight percent coated zeolite.

21. The lens of claim 17 having more than about zero weight percent coated zeolite, and less than about 0.1 weight percent coated zeolite.

22. The lens of claim 17 wherein the coated zeolite comprises silver.

23. (Amended). The lens of claim 1 wherein the coated zeolites comprise at least two different silanes of Formula I.

24. (Amended). The lens of claim 1 wherein the coated zeolites comprise at least two different silanes of Formula II.

25. (Amended). The lens of claim 1 wherein the coated zeolites comprise at least one silane of Formula I, at least one silane of Formula II or mixtures thereof.

Claims 26-52 (Cancel).

***Allowable Subject Matter***

2. The following is a statement of reasons for the indication of allowable subject matter:

Barry et al. (EP 1 050, 314) discloses antimicrobial ocular lens that is made up of polymeric material containing silver zeolite (abstract; column 4, lines 36-42; column 4, lines 1-7; column 6,

Art Unit: 1618

lines 20-34; column 7, lines 5-13 and claims 1-28). Barry differs from the claimed invention in that the ocular lens of Barry does not contain silane. Dziabo et al. (US 5,515,117) discloses antimicrobial contact lenses that are made up of polymeric material and the polymeric material is polysiloxane, polyethylene, polyesters or polymethacrylate (column 4, lines 15-24 and 54-66) and the antimicrobial component is substantially free of silver (column 3, lines 63 and 64). The contact lens of Dziabo does not contain zeolite as the antimicrobial lens of the claimed invention and the polymeric material of the lens of Dziabo is substantially free of silver. Rathore et al. (US 2004/0151755) discloses contact lens comprising a polymer and at least one silver-releasing compound (paragraph 11) and the silver-releasing compound does not include zeolites (paragraph 29). Thus, Rathore differs from the claimed invention by excluding zeolites as a silver-releasing compound. Therefore, the pending claims are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blessing M. Fubara whose telephone number is (571) 272-0594. The examiner can normally be reached on 7 a.m. to 3:30 p.m. (Monday to Friday).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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